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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,669	02/05/2002	Jianming Fu	AM-6619	8784
32588	7590	10/22/2003		
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050			EXAMINER VERSTEEG, STEVEN H	
			ART UNIT 1753	PAPER NUMBER
			DATE MAILED: 10/22/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,669

Applicant(s)

FU, JIANMING

Examiner

Steven H VerSteeg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 25-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21, 25-37, 39 and 42 is/are allowed.
- 6) ☒ Claim(s) 38, 40 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" has been used to designate both "metallic bit line" (see page 3, line 3) and "magnetron sputter reactor" (see page 6, line 28). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 38, 40, and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support for the claims could not be found in the specification as originally filed. Thus, the matter is considered to be new and must be canceled.

Response to Amendment

4. The objection to the drawings presented in the office action mailed May 15, 2003 stands. Applicant has corrected item 20 in only one location. There are still two locations that Applicant has not corrected as noted above.

5. The objection to the specification presented in the office action mailed May 15, 2003 is withdrawn in light of the amendment.

6. The claim objections presented in the office action mailed May 15, 2003 are withdrawn in light of the amendment.

7. The double patenting rejection presented in the office action mailed May 15, 2003 is withdrawn in light of the filing of a terminal disclaimer.

8. The 102(b) rejection of claim 25 over US 5,519,373 to Miyata presented in the office action mailed May 15, 2003 is withdrawn in light of Applicant's argument that the dipole ring of Miyata is not actually inside the vacuum chamber portion of the sputter reactor.

9. The 102(b) rejection of claims 16 and 18 over US 5,945,008 to Kisakibaru et al. (Kisakibaru) presented in the office action mailed May 15, 2003 is withdrawn in light of Applicant's argument that the magnetic ring is not placed inside the vacuum chamber.

10. The 103(a) rejection of claims 22-24 over US 5,945,008 to Kisakibaru et al. (Kisakibaru) in view of US 5,666,247 to Schultz presented in the office action mailed May 15, 2003 is withdrawn in light of the cancellation of the claims.

Allowable Subject Matter

11. Claims 1-21, 25-37, 39, and 42 are allowed.

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12. The following is a statement of reasons for the indication of allowable subject matter: it is neither anticipated nor obvious over the prior art of record to have a sputter reactor as claimed by Applicant in claim 1 comprising a magnetic dipole ring inside the sidewalls and outside of the support surface and having an axial extent along the central axis including a plane passing through the pedestal. Miyata and Kusakibaru are described above and do not disclose the limitation. Modification of either reference would require hindsight.

13. It is also neither anticipated nor obvious over the prior art of record to have a method of sputtering a magnetic material in a sputtering reactor processing vacuum chamber as claimed by Applicant in claim 16 wherein the magnetic dipole ring is in the interior of the vacuum chamber. As noted above, Kusakibaru does not disclose the limitation and modifying Kusakibaru to provide the limitation would require hindsight.

14. It is also neither anticipated nor obvious over the prior art of record to have a method of depositing a magnetic material with a preferred alignment on a substrate as claimed by Applicant in claim 19 wherein the magnetic dipole ring produces a substantially uniform magnetic field in a first direction along the substrate support surface. Miyata and Kusakibaru are described above and do not disclose the limitation. Modification of either reference would require hindsight.

15. It is also neither anticipated nor obvious over the prior art of record to have a magnetic dipole ring assembly as claimed by Applicant in claim 25 wherein the magnets are encapsulated in an annular vacuum-tight carrier. As noted above, Miyata does not disclose the limitation and modifying Miyata to provide the limitation would require hindsight.

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General Information

For general status inquiries on applications not having received a first action on the merits, please contact the Technology Center 1700 receptionist at (703) 308-0661.

For inquiries involving Recovery of lost papers & cases, sending out missing papers, resetting shortened statutory periods, or for restarting the shortened statutory period for response, please contact Palestine Jenkins at (703) 308-3521.

For general inquiries such as fees, hours of operation, and employee location, please contact the Technology Center 1700 receptionist at (703) 308-0661.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

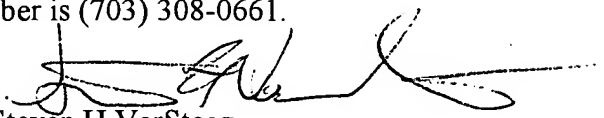
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H VerSteeg whose telephone number is (703) 305-4473.

The examiner can normally be reached on Mon - Thurs (7:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X Nguyen can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Steven H VerSteeg
Primary Examiner
Art Unit 1753

shv
October 22, 2003